



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 10/644808

TO: Ralph J Gitomer
Location: 3d65 / 3c18
Art Unit: 1655
Tuesday, October 25, 2005

Case Serial Number: 10/644808

From: Noble Jarrell
Location: Biotech-Chem Library
Rem 1B71
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Noble.jarrell@uspto.gov

Search Notes



=> d his

(FILE 'HOME' ENTERED AT 13:41:32 ON 24 OCT 2005)

L1 FILE 'HCAPLUS' ENTERED AT 13:41:44 ON 24 OCT 2005
1 US2004047816/PN OR (US2003-644808# OR JP2002-247008#)/AP, PRN

FILE 'REGISTRY' ENTERED AT 13:42:39 ON 24 OCT 2005

L2 FILE 'HCAPLUS' ENTERED AT 13:42:39 ON 24 OCT 2005
TRA L1 1- RN : 4 TERMS

L3 FILE 'REGISTRY' ENTERED AT 13:42:39 ON 24 OCT 2005
4 SEA L2

L4 FILE 'WPIX' ENTERED AT 13:42:45 ON 24 OCT 2005
1 L1

=> b hcap;d all 11

FILE 'HCAPLUS' ENTERED AT 13:43:09 ON 24 OCT 2005
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FILE COVERS 1907 - 24 Oct 2005 VOL 143 ISS 18
FILE LAST UPDATED: 23 Oct 2005 (20051023/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:181774 HCAPLUS
DN 140:204862
ED Entered STN: 05 Mar 2004
TI Photocatalytic bleaching agent for teeth containing titanium oxide
IN Yamaguchi, Shin; Sekiguchi, Toshihiro; Ikushima, Keisuke; Akahane, Shoji;
Aoki, Koyu; Morikawa, Takeshi; Ohwaki, Takeshi; Taga, Yasunori
PA GC Corporation, Japan
SO Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K007-20
ICS A61K007-22
CC 62-7 (Essential Oils and Cosmetics)
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI EP 1393711 A2 20040303 EP 2003-18675 20030821 <
EP 1393711 A3 20040310
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004083489	A2	20040318	JP 2002-247008	20020827 <--
US 2004047816	A1	20040311	US 2003-644808	20030821 <--
PRAI JP 2002-247008	A	20020827	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
EP 1393711	ICM	A61K007-20	
	ICS	A61K007-22	
EP 1393711	ECLA	A61K008/29; A61Q011/00	<--
JP 2004083489	FTERM	4C083/AB051; 4C083/AB172; 4C083/AB241; 4C083/AB242; 4C083/AB372; 4C083/AB411; 4C083/AB412; 4C083/AC061; 4C083/AC102; 4C083/AC111; 4C083/AC122; 4C083/AC132; 4C083/AD042; 4C083/BB60; 4C083/CC41; 4C083/DD23; 4C083/DD27; 4C083/DD28; 4C083/EE03; 4C083/EE35	<--
US 2004047816	NCL	424/053.000	
	ECLA	A61K008/29; A61Q011/00	<--

AB A method for bleaching teeth comprises steps of applying a solution containing nitrogen-doped titanium oxide powder on a surface of teeth, and irradiating the applied part with light to bleach the teeth based on a photocatalytic action thus produced. A bleaching agent for teeth suitable for carrying out the method comprises a solution containing nitrogen-doped titanium oxide powder, in which the nitrogen-doped titanium oxide is preferably a photocatalytic substance having a Ti-O-N structure having a titanium oxide crystalline lattice containing nitrogen and exhibiting a photocatalytic action in a visible light region, the bleaching agent contains preferably 0.01 to 5% by weight of the nitrogen-doped titanium oxide powder having a sp. surface area of from 10 to 500 m²/g, the solution contains water and/or an alc. as a solvent, and the bleaching agent further contains preferably 0.5 to 20% by weight of a thickener, 1 to 20% by weight of hydrogen peroxide, and 2 to 45% by weight of urea peroxide.

ST titanium oxide nitrogen photocatalysis bleaching dentifrice

IT Bleaching

Bleaching agents

Dentifrices

(photocatalytic bleaching agent for teeth containing nitrogen-doped titanium oxide powder)

IT Catalysis

(photochem.; photocatalytic bleaching agent for teeth containing nitrogen-doped titanium oxide powder)

IT 124-43-6 7722-84-1, Hydrogen peroxide, biological studies 7727-37-9,
Nitrogen, biological studies 13463-67-7, Titanium oxide, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(photocatalytic bleaching agent for teeth containing nitrogen-doped titanium oxide powder)

=> b reg;d ide l3 tot

FILE 'REGISTRY' ENTERED AT 13:43:14 ON 24 OCT 2005

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 OCT 2005 HIGHEST RN 865836-54-0
DICTIONARY FILE UPDATES: 23 OCT 2005 HIGHEST RN 865836-54-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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*****
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,      *
* effective March 20, 2005. A new display format, IDERL, is now        *
* available and contains the CA role and document type information.   *
*****
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Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

L3 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN
RN 13463-67-7 REGISTRY
ED Entered STN: 16 Nov 1984
CN Titanium oxide (TiO₂) (SCI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1120ZS95A8
CN 1385RN59
CN 1500D
CN 234DA
CN 500HD
CN 63B1 White
CN A 100
CN A 110P
CN A 160
CN A 190
CN A 200
CN A 200 (pigment)
CN A 330
CN A 330 (pigment)
CN A-Fil Cream
CN A-FN 3
CN Aerolyst 7710
CN Aerolyst 7711
CN Aerosil P 25
CN Aerosil P 25S6
CN Aerosil P 27
CN Aeroxide P 25
CN AF-E 3D
CN AK 15
CN AK 15 (pigment)
CN AM 100
CN Amperit 780.0
CN AMT 100
CN AMT 102
CN AMT 600
CN AT 02
CN AUF 0015S
CN Austiox R-CR 3
CN B 101
CN B 101 (pigment)
CN BA-PW 25
CN Bayer R-FD 1
CN Bayertitan A
CN Bayertitan AN 3

CN Bayertitan R-FD 1
 CN Bayertitan R-FK 21
 CN Bayertitan R-FK-D
 CN Bayertitan R-KB 2
 CN Bayertitan R-KB 3
 CN Bayertitan R-KB 4
 CN Bayertitan R-KB 5
 CN Bayertitan R-KB 6
 CN Bayertitan R-U 2
 CN Bayertitan R-U-F
 CN Bayertitan R-V-SE 20

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
 DISPLAY

AR 51745-87-0
 DR 494848-07-6, 494848-23-6, 494851-77-3, 494851-98-8, 552316-51-5,
 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1309-63-3, 1344-29-2,
 55068-84-3, 55068-85-4, 62338-64-1, 97929-50-5, 101239-53-6, 98084-96-9,
 37230-92-5, 37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0,
 39379-02-7, 100292-32-8, 116788-85-3, 185323-71-1, 185828-91-5,
 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2,
 246178-32-5, 252962-41-7

MF O2 Ti

CI COM

SR CA

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
 DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
 ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
 MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SCISEARCH, TOXCENTER,
 TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

O=Ti=O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

141466 REFERENCES IN FILE CA (1907 TO DATE)
 2155 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 141682 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN

RN 7727-37-9 REGISTRY

ED Entered STN: 16 Nov 1984

CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Diatomic nitrogen

CN Dinitrogen

CN Molecular nitrogen

CN Nitrogen (N2)

CN Nitrogen gas

CN Nitrogen nutrition (plant)

CN Nitrogen-14

FS 3D CONCORD

DR 778548-56-4, 745765-07-5, 794449-54-0, 161728-27-4, 156457-45-3,
 93037-13-9, 263005-65-8

MF N2

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*,

DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER,
TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

N
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N

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

284531 REFERENCES IN FILE CA (1907 TO DATE)
12408 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
284800 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN
RN 7722-84-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hydrogen peroxide (8CI)
OTHER NAMES:
CN Adeka Super EL
CN Albone
CN Albone 35
CN Albone DS
CN Anti-Keim 50
CN Asepticper
CN Baquashock
CN CIX
CN Crestal Whitestrips
CN Crystacide
CN Dentasept
CN Deslime LP
CN Hioxyl
CN Hipox
CN Hybrite
CN Hydrogen dioxide
CN Inhibine
CN Lensen A
CN Metrokur
CN Mirasept
CN NSC 19892
CN Odosat D
CN Opalescence Xtra
CN Oxigenal
CN Oxydol
CN Oxyfull
CN Oxysept
CN Oxysept I
CN Pegasyl
CN Perhydrol
CN Perone
CN Peroxaan
CN Peroxclean
CN Quasar Brite
CN Select Bleach
CN Superoxol

CN T-Stuff
CN Xtra White
FS 3D CONCORD
DR 8007-30-5, 66554-50-5, 37355-84-3, 218625-72-0
MF H₂ O₂
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,
DETERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
ENCOMPAT, ENCOMPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA,
MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*,
SCISEARCH, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

HO—OH

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

89835 REFERENCES IN FILE CA (1907 TO DATE)
783 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
89940 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN
RN 124-43-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN Urea, compd. with hydrogen peroxide (H₂O₂) (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hydrogen peroxide (H₂O₂), compd. with urea (1:1) (9CI)
CN Hydrogen peroxide, compd. with urea (1:1) (8CI)
CN Urea, compd. with H₂O₂ (6CI, 7CI)
CN Urea, compd. with hydrogen peroxide (1:1) (8CI)
OTHER NAMES:
CN Carbamide peroxide
CN Colgate Platinum
CN Colgate Simply White
CN Contrast PM
CN Debrox
CN Exterol
CN Gly-oxide
CN Hydrogen peroxide-urea adduct (1:1)
CN Hydrogen peroxide-urea compound (1:1)
CN Hydroperit
CN Hydroperite
CN Hyperol
CN Insta-Brite
CN Karisma
CN NG 10
CN NG 10 (bleaching agent)
CN Nite-White
CN NSC 24852
CN Nupro Gold
CN Opalescence
CN Opalescence Quick
CN Ortizon
CN Percarbamid
CN Percarbamide
CN Perfecta Trio
CN Perhydrit
CN Quik Start

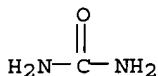
CN Thenardol
 CN Urea dioxide
 CN Urea hydrogen peroxide
 CN Vivastyle
 CN Whiteness
 CN Whiteness Super
 DR 12263-76-2, 12772-89-3, 37211-55-5
 MF C H4 N2 O . H2 O2
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
 CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST,
 CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT,
 IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, PHAR, PIRA, PROMT, TOXCENTER,
 USAN, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: EINECS**, NDSL**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

CM 1

CRN 7722-84-1
CMF H2 O2

HO—OH

CM 2

CRN 57-13-6
CMF C H4 N2 O

1195 REFERENCES IN FILE CA (1907 TO DATE)
 7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1195 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> b wpix;d all 14 tot
 FILE 'WPIX' ENTERED AT 13:43:22 ON 24 OCT 2005
 COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED: 19 OCT 2005 <20051019/UP>
 MOST RECENT DERWENT UPDATE: 200567 <200567/DW>
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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 DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX

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FOR FURTHER DETAILS: [<<<](http://www.thomsonderwent.com/dwpifv)

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PLEASE CHECK:
<http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/>
FOR DETAILS. <<<
'BIX BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

L4 ANSWER 1 OF 1 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-258887 [25] WPIX
DNC C2004-101205
TI Bleaching teeth by applying solution containing nitrogen-deeped titanium oxide powder and irradiating the applied part with light to bleach the teeth by photocatalytic action.
DC D21 E16 E36 J04 P32
IN AKAHANE, S; AOKI, K; IKUSHIMA, K; MORIKAWA, T; OHWAKI, T; SEKIGUCHI, T; TAGA, Y; YAMAGUCHI, S
PA (GCDE) GC CORP; (GCDE) GC KK; (TOYW) TOYOTA CHUO KENKYUSHO KK
CYC 34
PI EP 1393711 A2 20040303 (200425)* EN 17 A61K007-20
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
MC MK NL PT RO SE SI SK TR
JP 2004083489 A 20040318 (200425) 17 A61K007-16
US 2004047816 A1 20040311 (200425) A61K007-20 <--
AU 2003236473 A1 20040318 (200450) A61K007-20
ADT EP 1393711 A2 EP 2003-18675 20030821; JP 2004083489 A JP 2002-247008
20020827; US 2004047816 A1 US 2003-644808 20030821; AU
2003236473 A1 AU 2003-236473 20030826
PRAI JP 2002-247008 20020827
IC ICM A61K007-16; A61K007-20
ICS A61C005-00; A61K007-22
AB EP 1393711 A UPAB: 20040418
NOVELTY - Teeth are bleached by applying a bleaching agent which is a solution containing nitrogen-deeped titanium oxide powder, on a surface of the teeth; and irradiating the applied part with visible light to bleach the teeth by photocatalytic action.
USE - Bleaching teeth.
ADVANTAGE - The method removes pigments deposited on teeth (coloration and discoloration of teeth). The bleaching agent exhibits high bleaching effect with visible light.
Dwg.0/0
FS CPI GMPI
FA AB; DCN
MC CPI: D08-A; E10-A13B2; E31-H05; E35-K02; J04-E01

=> b home
FILE 'HOME' ENTERED AT 13:43:26 ON 24 OCT 2005

=>

=> d his full

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(FILE 'HOME' ENTERED AT 14:32:57 ON 24 OCT 2005)

FILE 'HCAPLUS' ENTERED AT 14:34:18 ON 24 OCT 2005
L1    1 SEA ABB=ON PLU=ON US2004047816/PN OR (US2003-644808# OR
      JP2002-247008#)/AP, PRN

FILE 'REGISTRY' ENTERED AT 14:34:25 ON 24 OCT 2005
L2    FILE 'HCAPLUS' ENTERED AT 14:34:25 ON 24 OCT 2005
      TRA L1 1- RN :        4 TERMS

FILE 'REGISTRY' ENTERED AT 14:34:26 ON 24 OCT 2005
L3    4 SEA ABB=ON PLU=ON L2

FILE 'WPIX' ENTERED AT 14:34:31 ON 24 OCT 2005
L4    1 SEA ABB=ON PLU=ON US2004047816/PN OR (US2003-644808# OR
      JP2002-247008#)/AP, PRN

FILE 'WPIX' ENTERED AT 15:16:34 ON 24 OCT 2005
E TITANIUM OXIDE/CN
L5    3 SEA ABB=ON PLU=ON ("TITANIUM OXIDE"/CN OR "TITANIUM OXYNITRID
      E"/CN)
      SEL SDCN L5
L6    12415 SEA ABB=ON PLU=ON (RABL01/DCN OR RA813V/DCN OR R01966/DCN)
      SEL SDRN L5
L7    37328 SEA ABB=ON PLU=ON 1966/DRN
L8    41585 SEA ABB=ON PLU=ON 1966/DRN OR R01966/DCN OR E35-K02/MC OR
      C01G023/IPC
L9    43181 SEA ABB=ON PLU=ON TITANIUM/BIX,BI,ABEX (1A) (DIOXIDE/BIX,BI,AB
      EX OR OXIDE/BIX,BI,ABEX)
L10   30603 SEA ABB=ON PLU=ON TIO2/BIX,BI,ABEX OR O2TI/BIX,BI,ABEX
L11   13385 SEA ABB=ON PLU=ON (E31-H03 OR E31-H05)/MC
      E 1738/DRN
      E E3+ALL
L12   15917 SEA ABB=ON PLU=ON 1738/DRN OR R01738/DCN
      E NITROGEN/CN
L13   19 SEA ABB=ON PLU=ON (NITROGEN/CN OR "NITROGEN (13)"/CN OR
      "NITROGEN (14)"/CN OR "NITROGEN (N13)"/CN OR "NITROGEN
      (N14)"/CN OR "NITROGEN 13-LABELED"/CN OR "NITROGEN BORON
      SELENIUM COMPLEX"/CN OR "NITROGEN DIFLUORIDE"/CN OR "NITROGEN
      DIOXIDE"/CN OR "NITROGEN DIOXIDE (SUPERSEDED)"/CN OR "NITROGEN
      MUSTARD"/CN OR "NITROGEN MUSTARD N-OXIDE"/CN OR "NITROGEN
      N14"/CN OR "NITROGEN PENTOXIDE"/CN OR "NITROGEN RADICAL"/CN OR
      "NITROGEN TRICHLORIDE"/CN OR "NITROGEN TRIFLUORIDE"/CN OR
      "NITROGEN- (13)"/CN OR "NITROGEN- (14)"/CN OR "NITROGEN- (N13)"/CN
      OR "NITROGEN- (N14)"/CN OR "NITROGEN- (N15)"/CN OR NITROGEN-15/C
      N OR NITROGEN-BORON-SELENIUM-COMPLEX/CN OR NITROGEN-DIOXIDE/CN
      OR NITROGEN-DOPED-SILICON-OXIDE/CN OR NITROGEN-N14/CN)
      SEL SDCN L13
L14   13414 SEA ABB=ON PLU=ON (R01902/DCN OR RACNSQ/DCN OR RAF4QX/DCN OR
      RAGIFF/DCN OR RA3KWE/DCN OR RA42B9/DCN OR RA8BLE/DCN OR
      RA9NDF/DCN OR RA9QPV/DCN OR R00055/DCN OR R01738/DCN OR
      R04069/DCN OR R09707/DCN OR R13410/DCN OR R14402/DCN OR
      R16866/DCN OR R18705/DCN OR R20149/DCN)
      SEL SDRN L13
L15   23860 SEA ABB=ON PLU=ON (1902/DRN OR 0055/DRN OR 1738/DRN)
L16   1083 SEA ABB=ON PLU=ON (L6 OR L7 OR L8) AND (L11 OR L12 OR L14 OR
      L15)
L17   546 SEA ABB=ON PLU=ON L16 AND M782/M0,M1,M2,M3,M4,M5,M6
L18   29 SEA ABB=ON PLU=ON L17 AND (N14#/M0,M1,M2,M3,M4,M5,M6 OR
      (E11-P OR K08-H?)/MC)
L19   49343 SEA ABB=ON PLU=ON (P91? OR P23)/M0,M1,M2,M3,M4,M5,M6 OR
      (A61K006 OR A61K007-16 OR A61K007-18 OR A61K007-20 OR A61K007-2
      2 OR A61K007-24 OR A61K007-26 OR A61K007-28 OR A61K007-30 OR
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A61C) / IPC

L20 1 SEA ABB=ON PLU=ON L18 AND L19
L21 2 SEA ABB=ON PLU=ON L17 AND L19
L22 5 SEA ABB=ON PLU=ON L16 AND L19
L23 5 SEA ABB=ON PLU=ON (L20 OR L21 OR L22)
SEL AN 1-2 4-5 L23
L24 4 SEA ABB=ON PLU=ON (1988-341408/AN OR 1995-311365/AN OR
2002-713678/AN OR 2004-258887/AN) AND L23
L25 3 SEA ABB=ON PLU=ON (D08-A03 OR D08-A04 OR D08-A05 OR D08-A06
OR D08-B08 OR B12-M02A OR C12-M02A OR A12-V03C? OR B12-L03 OR
C12-L03 OR B14-N06 OR C14-N06)/MC AND L16
L26 22 SEA ABB=ON PLU=ON (L9 OR L10) AND (NITROGEN/BIX,BI,ABEX OR
N2/BIX,BI,ABEX) (W) (DEEP?/BIX,BI,ABEX OR DOPE?/BIX,BI,ABEX)
L27 1 SEA ABB=ON PLU=ON L26 AND (N14#/M0,M1,M2,M3,M4,M5,M6 OR
(E11-P OR K08-H?)/MC)
L28 2 SEA ABB=ON PLU=ON L26 AND (L19 OR L25)
L29 5 SEA ABB=ON PLU=ON (L24 OR L27 OR L28)

FILE 'REGISTRY' ENTERED AT 15:45:40 ON 24 OCT 2005

L30 1 SEA ABB=ON PLU=ON L3 AND TI/ELS
L31 1 SEA ABB=ON PLU=ON L3 AND NITROGEN/CN
L32 STR
L33 29 SEA SSS SAM L32
L34 647 SEA SSS FUL L32
SAV TEM GIT808F0/A L34

FILE 'HCAPLUS' ENTERED AT 15:49:52 ON 24 OCT 2005

L35 QUE ABB=ON PLU=ON L30
L36 QUE ABB=ON PLU=ON TIO2 OR TITANIUM (1A) (OXIDE OR DIOXIDE)
E TITANIUM DIOXIDE/CT
E E3+ALL
L37 149077 SEA ABB=ON PLU=ON TITANIUM DIOXIDE+NT/CT
L38 QUE ABB=ON PLU=ON NITROGEN OR N2
E NITROGEN/CT
E E3+ALL
L39 287111 SEA ABB=ON PLU=ON NITROGEN+NT/CT
L40 QUE ABB=ON PLU=ON L31
L41 9538 SEA ABB=ON PLU=ON (L35 OR L36 OR L37) AND (L38 OR L39 OR
L40)

FILE 'HCAPLUS' ENTERED AT 15:52:32 ON 24 OCT 2005

L42 282 SEA ABB=ON PLU=ON L34
E DENTIFRICE/CT
E E4+ALL
L43 8954 SEA ABB=ON PLU=ON DENTIFRICES/CT
E ORAL HYGIENE/CT
E E3+ALL
E HYGIENE/CT
E E3+ALL
L44 165 SEA ABB=ON PLU=ON HYGIENE+NT/CT (L) ORAL
E FLOSS/CT
E DENTALFLOSS/CT
E DENTAL FLOSS/CT
E E3+ALL
E BLEACHING/CT
E E3+ALL
L45 22951 SEA ABB=ON PLU=ON BLEACHING+OLD, NT/CT
E MOUTHWASH/CT
E E4+ALL
L46 3711 SEA ABB=ON PLU=ON MOUTHWASHES+OLD/CT
L47 11 SEA ABB=ON PLU=ON (L41 OR L42) AND (L43 OR L44 OR L45 OR
L46)
L48 7 SEA ABB=ON PLU=ON L47 AND (PY<=2002 OR AY<=2002 OR PRY<=2002)
L49 11 SEA ABB=ON PLU=ON (L47 OR L48)

=> b wpx

FILE 'WPIX' ENTERED AT 16:02:13 ON 24 OCT 2005
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FILE LAST UPDATED: 24 OCT 2005 <20051024/UP>
 MOST RECENT DERWENT UPDATE: 200568 <200568/DW>
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 FOR DETAILS. <<<
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=> d all abeq abex tech 129 tot

L29 ANSWER 1 OF 5 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
 AN 2004-654926 [64] WPIX
 DNC C2004-234351
 TI Dental bleaching agent set for removing coloration and discoloration of
 teeth, comprises first component for previously attaching to tooth surface
 comprising organic solvent.
 DC D21 E37
 IN AKAHANE, S; AOKI, K; IKUSHIMA, K; MORIKAWA, T; OHWAKI, T; SEKIGUCHI, T;
 TAGA, Y; YAMAGUCHI, S
 PA (GCDE) GC CORP; (GCDE) GC KK; (TOYW) TOYOTA CHUO KENKYUSHO KK
 CYC 35
 PI EP 1457200 A1 20040915 (200464)* EN 15 A61K007-20 <--
 R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
 MC MK NL PL PT RO SE SI SK TR
 US 2004180008 A1 20040916 (200464) A61K007-20 <--
 JP 2004292429 A 20041021 (200469) 13 A61K007-20 <-- .
 AU 2004201016 A1 20040930 (200480) A61K007-20 <--
 ADT EP 1457200 A1 EP 2004-5130 20040304; US 2004180008 A1 US 2004-791783
 20040304; JP 2004292429 A JP 2004-15336 20040123; AU 2004201016 A1 AU
 2004-201016 20040305
 PRAI JP 2003-62839 20030310
 IC ICM A61K007-20
 ICS A61K006-00; A61K007-22
 AB EP 1457200 A UPAB: 20041006
 NOVELTY - A dental bleaching agent set comprises:
 (1) component for previously attaching to tooth surface comprising
 organic solvent containing titanium oxide powder,
 nitrogen doped titanium oxide
 powder, and titanium oxynitride powder having photocatalytic activities;
 and
 (2) component for contacting to tooth surface comprising a compound
 that produces hydrogen peroxide in water, thickener, and carrier.
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
 dental bleaching method comprising attaching to the teeth surface the
 first and second components of the inventive bleaching agent set.

USE - Used for removing coloration and discoloration of teeth (claimed) resulting from deposition of pigments on the teeth.

ADVANTAGE - The invention is able to remove coloration and discoloration of teeth.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D08-B08; E05-S; E10-A13B2; E31-E; E35-K02; E35-K04

TECH UPTX: 20041006

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Compositions: The titanium oxide powder, nitrogen doped titanium oxide powder, or titanium oxynitride powder is 0.001-30 wt.%, and carried ceramics on its surface in an island form, acicular form, or mesh form. The first component further contains metal oxide, metal salt, or metal powder (0.001-10 wt.%), and 0.5-20 wt.% thickener. It contains water.

Preferred Properties: The titanium oxynitride powder has titanium-oxygen-nitrogen structure containing nitrogen in its crystalline lattices, and exhibits photocatalytic activities on visible spectral region.

L29 ANSWER 2 OF 5 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2004-258887 [25] WPIX

DNC C2004-101205

TI Bleaching teeth by applying solution containing nitrogen-deeped titanium oxide powder and irradiating the applied part with light to bleach the teeth by photocatalytic action.

DC D21 E16 E36 J04 P32

IN AKAHANE, S; AOKI, K; IKUSHIMA, K; MORIKAWA, T; OHWAKI, T; SEKIGUCHI, T; TAGA, Y; YAMAGUCHI, S

PA (GCDE) GC CORP; (GCDE) GC KK; (TOYW) TOYOTA CHUO KENKYUSHO KK

CYC 34

PI EP 1393711 A2 20040303 (200425)* EN 17 A61K007-20 <--
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
MC MK NL PT RO SE SI SK TR
JP 2004083489 A 20040318 (200425) 17 A61K007-16 <--
US 2004047816 A1 20040311 (200425) A61K007-20 <--
AU 2003236473 A1 20040318 (200450) A61K007-20 <--

ADT EP 1393711 A2 EP 2003-18675 20030821; JP 2004083489 A JP 2002-247008
20020827; US 2004047816 A1 US 2003-644808 20030821; AU 2003236473 A1 AU
2003-236473 20030826

PRAI JP 2002-247008 20020827

IC ICM A61K007-16; A61K007-20

ICS A61C005-00; A61K007-22

AB EP 1393711 A UPAB: 20040418

NOVELTY - Teeth are bleached by applying a bleaching agent which is a solution containing nitrogen-deeped titanium oxide powder, on a surface of the teeth; and irradiating the applied part with visible light to bleach the teeth by photocatalytic action.

USE - Bleaching teeth.

ADVANTAGE - The method removes pigments deposited on teeth (coloration and discoloration of teeth). The bleaching agent exhibits high bleaching effect with visible light.

Dwg.0/0

FS CPI GMPI

FA AB; DCN

MC CPI: D08-A; E10-A13B2; E31-H05; E35-K02; J04-E01

ABEX UPTX: 20040418

EXAMPLE - As shown in JP-A-2002-154823, commercially available titanium dioxide powder and urea were mixed and agitated, and then subjected to a heat treatment at 450 degrees C for 30 minutes to produce powder A having a specific surface area of 280 m²/g. Platinum was carried on the surface of the powder A by the method shown in JP-A-2001-205103 to produce powder A-Pt.

A bleaching agent was prepared comprising (weight%) Powder A-Pt (0.1), urea

peroxide (20), glycerin (35), silica fine powder (6), and diethylene glycol (balance). It was coated on a pretreated tooth (maxilla right 3) and irradiated with visible light. The irradiation period was 5 minutes per once, and the distance from the surface of the tooth to the irradiator was 1 cm. Application of fresh bleaching agent for teeth and irradiation with light were repeated with an interval of 15-20 minutes. The effect of bleaching was evaluated. The patient was especially satisfied after an accumulated irradiation time of 30 minutes.

TECH

UPTX: 20040418

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Component: The nitrogen-deeped titanium oxide is a photocatalytic substance having a Ti-O-N structure having a titanium crystalline lattice containing nitrogen and exhibiting a photocatalytic action in visible light. It contains titanium oxide containing no nitrogen on the outer surface. It has a surface that carries a charge separation substance. The solution contains water and/or polyhydric alcohol as solvent.

Preferred Composition: The bleaching agent comprises 0.01-5 wt.% nitrogen-deeped titanium oxide powder, 0.5-20 wt.% thickener, 1-20 wt.% hydrogen peroxide and 2-45 wt.% urea peroxide.

Preferred Property: The nitrogen-deeped titanium oxide has a specific surface area of 10-500 m²/g.

TECHNOLOGY FOCUS - CERAMICS AND GLASS - Preferred Component: The nitrogen-deeped titanium oxide comprises a ceramic carried in an island form, needle form or mesh form.

L29 ANSWER 3 OF 5 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
 AN 2002-713678 [77] WPIX
 CR 2002-713696 [77]
 DNN N2002-562997 DNC C2002-202452
 TI Use of bioactive glass as abrasive used in treatment of dental hard tissue, and pulp disorders such as dental caries, pain, tooth wear, discoloration, dentine hyper-sensitivity and dental tissue congenital malformations.
 DC D21 L01 P32 P61
 IN COOK, R J; HENCH, L L; THOMPSON, I D; WATSON, T F; HENCH, L; THOMPSON, I
 PA (UNLO) IMPERIAL COLLEGE INNOVATIONS LTD; (UNLO) KINGS COLLEGE LONDON
 CYC 101
 PI WO 2002078645 A1 20021010 (200277)* EN 38 A61K006-06 <--
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
 NL OA PT SD SE SL SZ TR TZ UG ZM ZW
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
 DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
 KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
 RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM
 ZW
 US 2003008263 A1 20030109 (200311) A61C005-00 <--
 EP 1372574 A1 20040102 (200409) EN A61K006-06 <--
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI TR
 AU 2002251213 A1 20021015 (200432) A61K006-06 <--
 EP 1372574 B1 20050518 (200538) EN A61K006-06 <--
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
 DE 60204217 E 20050623 (200543) A61K006-06 <--
 ADT WO 2002078645 A1 WO 2002-GB1512 20020328; US 2003008263 A1 Provisional US
 2001-281809P 20010406, US 2002-109011 20020329; EP 1372574 A1 EP
 2002-720143 20020328, WO 2002-GB1512 20020328; AU 2002251213 A1 AU
 2002-251213 20020328; EP 1372574 B1 EP 2002-720143 20020328, WO
 2002-GB1512 20020328; DE 60204217 E DE 2002-00204217 20020328, EP
 2002-720143 20020328, WO 2002-GB1512 20020328
 FDT EP 1372574 A1 Based on WO 2002078645; AU 2002251213 A1 Based on WO
 2002078645; EP 1372574 B1 Based on WO 2002078645; DE 60204217 E Based on
 EP 1372574, Based on WO 2002078645

PRAI US 2001-281809P 20010406; GB 2001-8115 20010330
 IC ICM A61C005-00; A61K006-06
 ICS A61C003-025; A61K006-00; B24C001-00
 AB WO 200278645 A UPAB: 20050707
 NOVELTY - A bioactive glass is used in the manufacture of an air abrasive agent which is used in the treatment of dental hard tissue and pulpal disorders.
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of treating a dental hard tissue and pulp disorder which involves using bioactive glass as an air abrasive agent.
 USE - For use in the treatment of dental caries, dental disorder such as tooth hypersensitivity, dental hard tissue and pulpal disorders such as dental caries, pain, tooth wear, discoloration, dentine hyper-sensitivity and dental tissue congenital malformations (claimed).
 ADVANTAGE - The bioactive glass are beneficially used as an abrasive agent (cutting and/or surface peening agent) for cutting of both tooth enamel and dentine and in the delivery of the bioactive glass.
 Dwg.0/8
 FS CPI GMPI
 FA AB
 MC CPI: D08-A04; L01-A01; L01-A04; L01-A05; L01-A07A; L01-L07
 ABEX UPTX: 20021129
 EXAMPLE - Five freshly extracted roots were washed in normal saline and subjected to air abrasive cutting using a bioactive glass. The treated roots were evaluated for the properties. The result showed that the bioactive glass could remove softened decayed dentine from a root surface when used as an air abrasive, in a short period of time.
 TECH UPTX: 20021129
 TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Component: The bioactive glass comprises a source of silica (SiO_2) or Si(OH)_2 and a source of calcium oxide (CaO) and/or phosphorus pentoxide (P_2O_5). The bioactive glass further comprises a hardening agent and/or a softening agent. The softening agent is selected from sodium, potassium, calcium, magnesium, boron, aluminum, phosphorus, nitrogen, fluorine and the hardening agent is titanium oxide.
 The bioactive glass comprises 1-100% of SiO_2 or Si(OH)_2 , 0-60% of CaO , 0-60% P_2O_5 , 0-45% of sodium oxide (Na_2O), 0-45% of potassium oxide (K_2O) and 0-40% of magnesium oxide (MgO).
 The bioactive glass is obtained by the sol-gel method or melt method.
 The bioactive glass comprises 44-86 (45) wt.% SiO_2 , 4-46 (24.5) wt.% of CaO and 3-15 (6) wt.% of phosphorus pentoxide.
 Preferred Properties: The bioactive glass has a Vickers Hardness of at least that of tooth enamel, preferably 70-3000, preferably 70-300. The bioactive glass particles are substantially (non)spherical and have a diameter of 10-500 microns.
 The bioactive glass particles are capable of cutting through tooth enamel.

L29 ANSWER 4 OF 5 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
 AN 1995-311365 [40] WPIX
 DNC C1995-138634
 TI Multiple part photocurable ionomer cement system - comprises an aq paste of ionomer and an organic paste contg reactive filler.
 DC A14 A96 D21 E19
 IN KUEHN, R D; MITRA, S B; WANG, B
 PA (MINN) MINNESOTA MINING & MFG CO
 CYC 60
 PI WO 9522956 A1 19950831 (199540)* EN 66 A61K006-083 <--
 RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG
 W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG
 KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE
 SI SK TJ TT UA UZ VN
 AU 9519181 A 19950911 (199550) A61K006-083 <--
 EP 748201 A1 19961218 (199704) EN A61K006-083 <--
 R: DE FR GB IT
 JP 09509392 W 19970922 (199748) 53 C04B012-00
 ADT WO 9522956 A1 WO 1995-US1828 19950209; AU 9519181 A AU 1995-19181

19950209; EP 748201 A1 EP 1995-911713 19950209, WO 1995-US1828 19950209;
 JP 09509392 W JP 1995-522376 19950209, WO 1995-US1828 19950209

FDT AU 9519181 A Based on WO 9522956; EP 748201 A1 Based on WO 9522956; JP
 09509392 W Based on WO 9522956

PRAI US 1994-202839 19940228

REP EP 323120; EP 510211; EP 554890; US 5063257; US 5154762; US 5227413; WO
 9312759

IC ICM A61K006-083; C04B012-00
 ICS C04B028-28

AB WO 9522956 A UPAB: 19951128
 A multiple part photocurable ionomeric cement system comprises: (a) an aqueous
 paste of a photocurable ionomer; and (b) an organic paste containing reactive
 filler. The ionomer has sufficient pendant ionic gps. to undergo a setting
 reaction in the presence of (b) and H₂O, and sufficient pendent
 polymerisable gps. to enable the resulting mixture to be cured by exposure
 to radiant energy.
 Also claimed are the following: (1) a method of preparing a cured
 ionomer cement having high strength and low opacity by mixing (a) and (b)
 and exposing to radiant energy; and (2) a cured ionomer cement prepared by
 exposing to radiant energy a photocurable cement system.

USE - The cement system is a component of a kit for treatment of
 teeth (claimed). The cements can be used as dental restoratives, liners,
 bases, cements, sealants and as dental or orthodontic adhesives.

ADVANTAGE - Paste:paste formulations of glass ionomer cement
 materials exhibit properties which are improved to those of like materials
 provided in known powder: liquid format. The cement system has a Diametral
 Tensile strength which is greater than 10% higher than the described like
 cement system (claimed). When exposed to radiant energy, the system has a
 visual opacity of less than 0.4 (claimed).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A08-R01; A11-C02B; A12-V02B; D08-A02; E05-L02A; E05-L02B; E07-A02D;
 E10-A04B; E10-A09B4; E10-A13A2; E10-A18B; E10-D03C; E10-E04G;
 E10-E04K; E31-E; E31-H05; E31-P03; E31-P05D;
 E35-K02; E35-L; E35-U04; E35-V

L29 ANSWER 5 OF 5 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
 AN 1988-341408 [48] WPIX
 DNC C1988-150908

TI Metallic double oxide spherical particles production - by hydrolysing mixture of
 metal alkoxide(s) and metallic salts to form gel, heating, etc..

DC A96 D21 E32 E33 L02

PA (TOKU) TOKUYAMA SODA KK

CYC 1

PI JP 63252909 A 19881020 (198848)* 8
 JP 05075686 B 19931021 (199345) 8 C01B013-36

ADT JP 63252909 A JP 1987-85757 19870409; JP 05075686 B JP 1987-85757 19870409

FDT JP 05075686 B Based on JP 63252909

PRAI JP 1987-85757 19870409

IC C01G023-00; C01G025-00; C10B013-18; C10B033-18
 ICM C01B013-36
 ICS C01B033-18; C01G023-00; C01G025-00; C10B013-18; C10B033-18

AB JP 63252909 A UPAB: 19930923
 At least two kinds of metal alkoxides (a) or a mixture of metal alkoxides
 and metallic salts (b) is hydrolysed to form gel, which is heated at a
 temperature higher than 400 deg.C below its fusing temperature. The resultant metallic
 oxide powders are dispersed in a gas (c) and passed through a heating zone
 whose temperature is higher than the m.pt. of the metallic oxide powders.
 Pref. (a) are zirconium tetrapropoxide, tetraethylsilicate, aluminium
 tri-sec-butoxide and others. (b) are pref. calcium nitrate, aluminium
 nitrate, and other. Pref. (c) is air, O₂, N₂, H₂ or Ar.
 ADVANTAGE - Spherical double oxide powders having a good transparency
 to visible light can be obtd., which consist of e.g., silica, titania or
 zirconia and are used for mixing with photosetting monomers like acrylic
 acid to form cement composite for dental service.

0/2
 FS CPI
 FA AB; DCN
 MC CPI: A04-F04; A08-R; A12-V02B; D08-A02; E31-P01; E31-P02C; E35-K01; E35-L;
 L02-A02
 ABEQ JP 93075686 B UPAB: 19931220

At least two kinds of metal alkoxides (a) or a mixt. of metal alkoxides and metallic salts (b) is hydrolysed to form gel, which is heated at a temp. higher than 400 deg.C below its fusing temp. The resultant metallic oxide powders are dispersed in a gas (c) and passed through a heating zone whose temp. is higher than the m.pt. of the metallic oxide powders.

Pref. (a) are zirconium tetrapropoxide, tetraethylsilicate, aluminium tri-sec-butoxide and others, (b) are pref. calcium nitrate, aluminium nitrate, and other. Pref. (c) is air, O₂, N₂, H₂ or Ar.

ADVANTAGE - Spherical double oxide powders having a good transparency to visible light can be obtd., which consist of e.g., silica, titania or zirconia and are used for mixing with photosetting monomers like acrylic acid to form cement composite for dental service. (J63252909-A)

=> b hcap
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 FILE LAST UPDATED: 23 Oct 2005 (20051023/ED)

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L49 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2005:34455 HCAPLUS
 DN 142:133463
 ED Entered STN: 14 Jan 2005
 TI Grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products.
 IN Nie, Li; Maningat, Clodualdo; Bassi, Sukh Dev
 PA USA
 SO U.S. Pat. Appl. Publ., 9 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM A23J001-00
 INCL 426656000
 CC 17-6 (Food and Feed Chemistry)
 Section cross-reference(s): 62
 FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE
 ----- ----- ----- ----- -----

PI	US 2005008759	A1	20050113	US 2003-617565	20030711
	WO 2005007749	A1	20050127	WO 2004-US22383	20040712
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2003-617565 A2 20030711

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2005008759	ICM	A23J001-00
	INCL	426656000
US 2005008759	NCL	426/656.000
	ECLA	A23K001/00B1; A23K001/00B2; A23K001/16G; A23K001/18N2; A23L001/24D; C08L089/00; C08L089/00+B6
WO 2005007749	ECLA	A23K001/00B1; A23K001/00B2; A23K001/16G; A23K001/18N2; A23L001/24D; C08L089/00; C08L089/00+B6

AB Shelf stabilizing agents including hydrolyzed protein, hydrolyzed protein derivs., and hydrolyzed protein-emulsifier complexes improve the shelf life of a pelletized grain protein-based resin formulation which can be used in edible products such as pet chew toys and snack foods. The pellets may be prepared well in advance of further processing, such as by injection molding and extrusion, which provides shaped articles of the edible or biodegradable variety.

ST grain hydrolyzed protein stabilizer feed pet chew toy

IT Fatty acids, biological studies

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(C12-22; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Fatty acids, biological studies

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(and derivs., lubricants; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Fats and Glyceridic oils, biological studies

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(animal, hydrolyzates; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Meat

(beef, liver, hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Glycine max

(bran; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Deodorants (personal)

(breath fresheners; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Meat

(chicken, liver, hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Emulsifying agents

(complexes with hydrolyzed grain proteins; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Glutens

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(corn meal, filler; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Glutens

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (corn, hydrolyzed; grain hydrolyzed protein-based formulations for
 stabilizing pelletized grain protein-based edible resin products)

IT Food
 (dyes; grain hydrolyzed protein-based formulations for stabilizing
 pelletized grain protein-based edible resin products)

IT Monoglycerides
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (esters and ethoxylates; grain hydrolyzed protein-based formulations
 for stabilizing pelletized grain protein-based edible resin products)

IT Fatty acids, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (esters, propylene glycol mono- and diesters; grain hydrolyzed
 protein-based formulations for stabilizing pelletized grain
 protein-based edible resin products)

IT Alkaline earth salts
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (fatty acid salts, mold release agents; grain hydrolyzed protein-based
 formulations for stabilizing pelletized grain protein-based edible
 resin products)

IT Glycine max
 (fiber; grain hydrolyzed protein-based formulations for stabilizing
 pelletized grain protein-based edible resin products)

IT Dietary fiber
 Wheat flour
 (filler; grain hydrolyzed protein-based formulations for stabilizing
 pelletized grain protein-based edible resin products)

IT Carbonates, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (fillers; grain hydrolyzed protein-based formulations for stabilizing
 pelletized grain protein-based edible resin products)

IT Liver
 (fish hydrolyzed; grain hydrolyzed protein-based formulations for
 stabilizing pelletized grain protein-based edible resin products)

IT Oryza sativa
 (flour and meal, filler; grain hydrolyzed protein-based formulations
 for stabilizing pelletized grain protein-based edible resin products)

IT Dyes
 (food; grain hydrolyzed protein-based formulations for stabilizing
 pelletized grain protein-based edible resin products)

IT Coloring materials
 Dentifrices
 Extrusion, nonbiological
 Feed additives
 Fillers
 Foaming agents
 Food preservatives
 Lubricants
 Oryza sativa
 Pigments, nonbiological
 Plasticizers
 Reducing agents
 Solanum tuberosum
 Stabilizing agents
 Wheat bran
 (grain hydrolyzed protein-based formulations for stabilizing pelletized
 grain protein-based edible resin products)

IT Carbon black, biological studies
 Carotenes, biological studies
 Chlorophylls, biological studies
 Diglycerides
 Fatty acids, biological studies
 Polyoxyalkylenes, biological studies
 Protein hydrolyzates
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (grain hydrolyzed protein-based formulations for stabilizing pelletized

grain protein-based edible resin products)

IT Anhydrides
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Oligosaccharides, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Resins
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (grain protein-based; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Proteins
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (grain; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Zea mays
 (grits, fiber; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Proteins
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (heat-denatured, fillers; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Temperature effects, biological
 (heat; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Collagens, biological studies
 Gelatins, biological studies
 Lecithins
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (hydrolyzates; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Lecithins
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (hydrolyzed and derivs., lubricants; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Syrups (sweetening agents)
 (hydrolyzed starch, hydrogenated; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Blood plasma
 Egg, poultry
 Egg white
 Egg yolk
 Fish
 (hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Caseins, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Molding
 (injection; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Bisulfites
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (metabisulfites, reducing agents; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Parting materials
 (mold-release agents; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT Feed
 (pet chews; grain hydrolyzed protein-based formulations for stabilizing

pelletized grain protein-based edible resin products)
 IT Meat
 (pork, liver, hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Vegetable
 (powdered, fillers; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Oryza sativa
 Solanum tuberosum
 (protein, hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Cereal (grain)
 (proteins and protein hydrolyzates; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Meat
 (proteins, hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Bisulfites
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (reducing agents; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Carbohydrates, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reducing sugars; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Flours and Meals
 (rice, filler; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Food
 (snack; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Proteins
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (soybean, hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Bran
 (soybean; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Organelle
 (starch granule; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Alkali metals, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (sulfites, reducing agents; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Fats and Glyceridic oils, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (vegetable, hydrolyzates; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Protein hydrolyzates
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (wheat gluten, Midsol HWG 2009; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Glutens
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (wheat, hydrolyzates, Midsol HWG 2009; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Glutens
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (wheat, hydrolyzed; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)
 IT Protein hydrolyzates
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(whey; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 9005-25-8, Solka-Floc 90G, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (Solka-Floc 90G; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 9004-34-6, Cellulose, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (fibers; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 9005-25-8D, Starch, modified
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (filler; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 124-38-9, Carbon dioxide, biological studies 127-40-2, Xanthophyll
 144-55-8, Sodium bicarbonate, biological studies 471-34-1, Calcium carbonate, biological studies 1323-83-7, Distearin 5793-94-2, Calcium stearoyl-2-lactylate 7727-37-9, Nitrogen, biological studies 9004-53-9, Dextrin 9005-67-8, Polysorbate 60
 13463-67-7, Titanium dioxide, biological studies 14807-96-6, Talc, biological studies 25383-99-7, Sodium stearoyl-2-lactylate 31566-31-1, Monostearin 68651-46-7, Indigo (dye) 155215-71-7, Panodan SDK 685108-81-0, Optimizor CHX H-base
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 75-21-8, Ethylene oxide, reactions 75-56-9, Propylene oxide, reactions 9050-36-6, Maltodextrin
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 557-04-0, Magnesium stearate 1592-23-0, Calcium stearate 6865-35-6, Barium stearate
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (mold release agent; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 50-70-4, Sorbitol, biological studies 56-81-5, Glycerol, biological studies 57-13-6, Urea, biological studies 57-55-6, Propylene glycol, biological studies 69-65-8, Mannitol 112-27-6, Triethylene glycol 585-88-6, Maltitol 9002-89-5, Polyvinyl alcohol 25322-68-3, Polyethylene glycol 59113-36-9, Diglycerol
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (plasticizer; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 52-90-4, L-Cysteine, biological studies 60-23-1, Cysteamine 60-24-2, Mercaptoethanol 7446-09-5, Sulfur dioxide, biological studies 7681-57-4, Sodium metabisulfite 10196-04-0, Ammonium sulfite
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (reducing agent; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

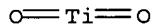
IT 57-11-4D, Stearic acid, alkaline earth salts
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (release agents; grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

IT 7727-37-9, Nitrogen, biological studies
 13463-67-7, Titanium dioxide, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (grain hydrolyzed protein-based formulations for stabilizing pelletized grain protein-based edible resin products)

RN 7727-37-9 HCPLUS
 CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

N
||.
N

RN 13463-67-7 HCAPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)



L49 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:1019882 HCAPLUS
 DN 141:427781
 ED Entered STN: 26 Nov 2004
 TI Cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles
 IN Wood, Claudia; Schneider, Tanja; Baum, Pia
 PA BASF Aktiengesellschaft, Germany
 SO PCT Int. Appl., 81 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM A61K007-075
 ICS A61K007-04; A61K007-48
 CC 62-4 (Essential Oils and Cosmetics)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004100910	A1	20041125	WO 2004-EP5203	20040514
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10322152	A1	20041202	DE 2003-10322152	20030516
PRAI	DE 2003-10322152	A	20030516		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO	2004100910	ICM	A61K007-075
		ICS	A61K007-04; A61K007-48
WO	2004100910	ECLA	A61K008/02F; A61K008/81R; A61K008/81R4; A61Q001/02; A61Q001/06; A61Q001/10; A61Q005/00; A61Q005/02; A61Q005/06; A61Q005/06D; A61Q005/10; A61Q011/00; A61Q015/00; A61Q017/04; A61Q019/00; A61Q019/10
DE	10322152	ECLA	A61K008/02F; A61K008/81R; A61K008/81R4; A61Q001/02; A61Q001/06; A61Q001/10; A61Q005/00; A61Q005/02; A61Q005/06; A61Q005/06D; A61Q005/10; A61Q011/00; A61Q015/00; A61Q017/04; A61Q019/00; A61Q019/10

AB The invention relates to a cosmetic product containing at least one polymer that can be obtained by radical polymerization of a,ss-ethylenically unsatd. compds. that resp. contain at least one nitrogenous heterocycle, in the presence of a polymer graft base. The invention also relates to the use of such polymers. Graft polymers were synthesized from polyethylene glycol, vinylpyrrolidone and vinylimidazole. The polymers were used as

ingredients in various cosmetic formulations. A makeup contained (weight/weight%): glyceryl stearate 1.70; cetyl alc. 1.70; ceteareth-6 1.70; Ceteareth-25 1.70; caprylic/capric triglyceride 5.20; mineral oil 5.20; preservative q.s.; propylene glycol 4.30; graft polymer 2.50; water 59.50; perfume q.s.; iron oxides 2.00; titanium dioxide 12.00.

ST cosmetics graft polymer polyethylene glycol vinylpyrrolidone vinylimidazole

IT Shaving preparations

(aerosol foams; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics

(aerosols; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Shaving preparations

(aftershave; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Alcohols, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(aliphatic, C1-C4; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics

(cleansing; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations

(conditioners; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Antifoaming agents

Antioxidants

Antiperspirants

Antistatic agents

Bleaching agents

Cosmetics

Dentifrices

Emulsifying agents

Gelation agents

Mouthwashes

Perfumes

Plasticizers

Preservatives

Shampoos

Sunscreens

Suntanning agents

Surfactants

Thickening agents

(cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Collagens, biological studies

Fats and Glyceridic oils, biological studies

Fatty acids, biological studies

Lipids, biological studies

Paraffin oils

Polysiloxanes, biological studies

Protein hydrolyzates

Soaps

Waxes

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics

(creams; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hydrocarbons, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(cyclic and non-cyclic; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations
(dyes, oxidative; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations
(dyes; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(emollients; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(emulsions; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Carboxylic acids, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(esters, C6-C30, with; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(eye liners; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(face packs; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Alcohols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(fatty; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations
(fixatives; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(gels, glossy; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations
(gels, styling; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Bath preparations
Cosmetics
(gels; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Polymers, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(graft; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(lipsticks; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(lotions; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(makeups; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(mascaras; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(moisturizers; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations
(mousses; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
(nail lacquers; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Heterocyclic compounds

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (nitrogen, polymer components; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Bath preparations
 (oils; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations
 (permanent wave; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Polymerization
 (radical; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Foams
 (shaving; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations
 (sprays; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Hair preparations
 (styling; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
 (suspensions, ointments, pastes; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT Cosmetics
 (tonics and skin peeling preps.; cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

IT 333724-47-3P 525605-74-7P 525605-75-8P 525605-76-9P 527673-12-7P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (cosmetic products containing at least one polymer based on monomers comprising nitrogen heterocycles)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
 (1) Kud, A; US 4904408 A 1990 HCPLUS
 (2) Mueller, C; WO 03042264 A 2003 HCPLUS
 (3) Nippon Catalytic Chem Ind; DE 10036713 A 2001 HCPLUS
 (4) Papantoniou, C; US 4048301 A 1977 HCPLUS

L49 ANSWER 3 OF 11 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:924647 HCPLUS
 DN 142:225288
 ED Entered STN: 03 Nov 2004
 TI Toothpaste composition using natural mineral
 IN Kim, Ji Hui
 PA Human Tech Co., Ltd., S. Korea
 SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
 CODEN: KRXXA7
 DT Patent
 LA Korean
 IC ICM A61K007-16
 CC 62-7 (Essential Oils and Cosmetics)
 Section cross-reference(s): 53

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI KR 2002071514	A	20020913	KR 2001-11573	20010306 <--
PRAI KR 2001-11573		20010306	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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KR 2002071514	ICM	A61K007-16
AB	A toothpaste composition comprising natural minerals such as SiO ₂ , CaO, MgO, Fe ₂ O ₃ and the like is provided which is effective in the prevention and treatment of dental plaque on teeth, dental caries, periodontal disease	

and gingivitis and enhances the person's immune system response and ability to resist bacterial infection in mouth that causes plaque or the like. This toothpaste composition contains 48 to 53% by weight of SiO₂, 20 to 25% by weight of Al₂O₃, 0.1 to 0.2% by weight of Fe₂O₃, 0.17 to 0.23% by weight of TiO₂, 0.01% by weight of CaO, 0.22 to 0.27% by weight of Na₂O and 4.3 to 4.8% by weight of K₂O as main components, 5.5 to 6.0% by weight of MnO, 1.8 to 2.3% by weight of CuO, 3.0 to 3.5% by weight of ZnO, 0.4 to 0.45% by weight of CoO, 0.65 to 0.7% by weight of MoO, 52 to 57% by weight of BO, 1.0 to 1.5% by weight of CrO, 0.9 to 1.0% by weight of NiO, 0.7 to 1.0% by weight of VO, 4.8 to 5.3% by weight of NO and 5.0 to 5.5% by weight of PO.

ST toothpaste compn natural mineral

IT Dentifrices

(toothpaste composition containing natural minerals)

IT Minerals, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(toothpaste composition containing natural minerals)

IT 1305-78-8, Calcium oxide, biological studies 1307-96-6, Cobalt oxide, biological studies 1309-37-1, Iron trioxide, biological studies 1309-48-4, Magnesium oxide, biological studies 1313-59-3, Sodium oxide, biological studies 1313-99-1, Nickel oxide, biological studies 1317-38-0, Cupric oxide, biological studies 1344-28-1, Aluminum oxide, biological studies 1344-43-0, Manganese monoxide, biological studies 7631-86-9, Silica, biological studies 10102-43-9, Nitrogen oxide (NO), biological studies 12018-00-7, Chromium oxide (CrO) 12035-98-2, Vanadium oxide (VO) 12058-07-0, Molybdenum oxide (MoO) 12136-45-7, Potassium oxide, biological studies 13463-67-7, Titania, biological studies 14452-66-5, Phosphorus oxide (PO) RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(toothpaste composition containing natural minerals)

IT 13463-67-7, Titania, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(toothpaste composition containing natural minerals)

RN 13463-67-7 HCPLUS

CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)

O=Ti=O

L49 ANSWER 4 OF 11 HCPLUS COPYRIGHT 2005 ACS on STN

AN 2004:849488 HCPLUS

DN 142:10689

ED Entered STN: 18 Oct 2004

TI Gray water treatment and reuse

AU Li, Zifu

CS Bengbu, Peop. Rep. China

SO Hamburger Berichte zur Siedlungswasserwirtschaft (2004), 47, i-xv,1-150

CODEN: HBSIEY; ISSN: 0724-0783

PB Gesellschaft zur Foerderung der Forschung und Entwicklung der Umwelttechnologien an der Technischen Universitaet Hamburg-Harburg e. V.

DT Journal

LA German

CC 60-1 (Waste Treatment and Disposal)

Section cross-reference(s): 46, 61, 62

AB Options of regeneration of gray water (domestic wastewater without feces and urine) for reuse were investigated. A real and several synthetic gray waters were subjected to biol. treatment in a sequencing-batch reactor (SBR) process. The discharge values of the SBR - TOC 8-10 mg/L (<5 mg/L if ecol. household chems. were used only), N <5 mg/L, P 2-8 mg/L (<1 mg/L when using PO₄-free detergents) - require further treatment for high-grade reuse. Low-rate sand filtration, microfiltration, nanofiltration, reverse osmosis, adsorption on activated C, photocatalytic oxidation (TiO₂/UV-A radiation), and soil infiltration (for groundwater recharge) were tested and process combinations are proposed, e.g. of SBR process, microfiltration, plus reverse osmosis (with

utilization of the permeate as tap water and of the retentate for lower-grade purposes such as irrigation). Recommendations are derived with special respect to applications in China.

ST domestic wastewater gray water treatment reuse

IT Wastewater treatment
(adsorption; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Wastewater treatment
(biol., sequencing batch reactor; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Detergents
(dishwashing; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Wastewater treatment
(filtration, sand; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Bath preparations
(gels; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Detergents
(laundry; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Wastewater treatment
(membrane filtration; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Wastewater treatment
(microfiltration; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Wastewater treatment
(nanofiltration; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Dentifrices
Electric conductivity
Escherichia coli
Recycling
Shampoos
Turbidity
(options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Nitrates, processes
Nitrites
TOC (total organic carbon)
RL: POL (Pollutant); REM (Removal or disposal); OCCU (Occurrence); PROC (Process)
(options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Wastewater treatment
(oxidation, catalytic, photochem.; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Wastewater treatment
(reverse osmosis; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT Wastewater treatment
(soil filtration; options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

IT 7723-14-0, Phosphorus, processes 7727-37-9, Nitrogen, processes 14798-03-9, Ammonium, processes
RL: POL (Pollutant); REM (Removal or disposal); OCCU (Occurrence); PROC (Process)
(options of regeneration of gray water (domestic wastewater without feces and urine) for reuse)

RE.CNT 173 THERE ARE 173 CITED REFERENCES AVAILABLE FOR THIS RECORD

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 IT 7727-37-9, Nitrogen, processes
 RL: POL (Pollutant); REM (Removal or disposal); OCCU (Occurrence); PROC
 (Process)
 (options of regeneration of gray water (domestic wastewater without
 feces and urine) for reuse)
 RN 7727-37-9 HCAPLUS
 CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

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L49 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2005 ACS ON STN
 AN 2004:753133 HCAPLUS
 DN 141:265616
 ED Entered STN: 16 Sep 2004
 TI Dental bleaching agent set and the method for bleaching teeth
 IN Yamaguchi, Shin; Sekiguchi, Toshihiro; Ikushima, Keisuke; Akahane, Shoji;
 Aoki, Koyu; Morikawa, Takeshi; Ohwaki, Takeshi; Taga, Yasunori
 PA GC Corporation, Japan
 SO Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DT Patent
 LA English

IC ICM A61K007-20
 ICS A61K007-22; A61K006-00
 CC 62-7 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1457200	A1	20040915	EP 2004-5130	20040304
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
	JP 2004292429	A2	20041021	JP 2004-15336	20040123
	US 2004180008	A1	20040916	US 2004-791783	20040304
PRAI	JP 2003-62839	A	20030310		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 1457200	ICM	A61K007-20
		ICS	A61K007-22; A61K006-00
	EP 1457200	ECLA	A61K006/00; A61K008/22; A61K008/29; A61Q011/00
	JP 2004292429	FTERM	4C083/AB032; 4C083/AB172; 4C083/AB212; 4C083/AB241; 4C083/AB242; 4C083/AB332; 4C083/AB382; 4C083/AB411; 4C083/AB412; 4C083/AC102; 4C083/AC122; 4C083/AD042; 4C083/AD092; 4C083/BB55; 4C083/CC41; 4C083/DD23; 4C083/DD27; 4C083/DD50; 4C083/EE35
	US 2004180008	NCL	424/053.000
		ECLA	A61K006/00; A61K008/22; A61K008/29; A61Q011/00

AB To eliminate a defect in conventional dental bleaching agent, that light for activating titanium oxide hardly reaches down to the titanium oxide at the teeth surface to be bleached, a dental bleaching agent set consisting of two components is described. The first component is attached to teeth surface and irradiation of light is followed after the second component is contacted on the teeth surface. The first component consists of an organic solvent containing at least one of a titanium oxide, a nitrogen doped titanium oxide, and a titanium oxinitride having photocatalytic activities, and preferably one or more of a metal oxide, a metal salt, and a metal powder, a thickener and water. The second component consists of a compound that produces hydrogen peroxide in water, a thickener and a carrier.

ST titanium oxide oxinitride photocatalyst hydrogen peroxide dental bleaching

IT Light

(irradiation with; two-component dental bleaching agent set employing photocatalytic and hydrogen peroxide reactions)

IT Catalysts

(photochem.; two-component dental bleaching agent set employing photocatalytic and hydrogen peroxide reactions)

IT Metals, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(powders; two-component dental bleaching agent set employing photocatalytic and hydrogen peroxide reactions)

IT Bleaching agents

Thickening agents

(two-component dental bleaching agent set employing photocatalytic and hydrogen peroxide reactions)

IT Apatite-group minerals

Oxides (inorganic), biological studies

Salts, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(two-component dental bleaching agent set employing photocatalytic and hydrogen peroxide reactions)

IT Dentifrices

(whitening; two-component dental bleaching agent set employing photocatalytic and hydrogen peroxide reactions)

IT 13463-67-7, ST 01, biological studies

RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(ST 01; two-component dental bleaching agent set employing photocatalytic and hydrogen peroxide reactions)

- IT 7727-37-9, Nitrogen, biological studies
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (titanium oxide doped with; two-component dental
 bleaching agent set employing photocatalytic and hydrogen peroxide
 reactions)
- IT 124-43-6 7440-06-4, Platinum, biological studies 7722-84-1, Hydrogen
 peroxide, biological studies 12040-57-2, Iron chloride 37271-26-4,
 Titanium oxynitride 60842-32-2, Aerosil R972 76050-42-5, Carbopol 940
 101659-01-2, Sodium magnesium silicate
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (two-component dental bleaching agent set employing photocatalytic and
 hydrogen peroxide reactions)

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- IT 13463-67-7, ST 01, biological studies
 RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT
 (Reactant or reagent); USES (Uses)
 (ST 01; two-component dental bleaching agent set employing
 photocatalytic and hydrogen peroxide reactions)

RN 13463-67-7 HCPLUS

CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)

O—Ti=O

- IT 7727-37-9, Nitrogen, biological studies
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (titanium oxide doped with; two-component dental
 bleaching agent set employing photocatalytic and hydrogen peroxide
 reactions)

RN 7727-37-9 HCPLUS

CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

N
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N

- L49 ANSWER 6 OF 11 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:181774 HCPLUS
 DN 140:204862
 ED Entered STN: 05 Mar 2004
 TI Photocatalytic bleaching agent for teeth containing titanium
 oxide
 IN Yamaguchi, Shin; Sekiguchi, Toshihiro; Ikushima, Keisuke; Akahane, Shoji;
 Aoki, Koyu; Morikawa, Takeshi; Ohwaki, Takeshi; Taga, Yasunori
 PA GC Corporation, Japan
 SO Eur. Pat. Appl., 17 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM A61K007-20
 ICS A61K007-22
 CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1393711	A2	20040303	EP 2003-18675	20030821 <--
	EP 1393711	A3	20040310	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK	
	JP 2004083489	A2	20040318	JP 2002-247008	20020827 <--
	US 2004047816	A1	20040311	US 2003-644808	20030821 <--
PRAI	JP 2002-247008	A	20020827	<--	

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 1393711	ICM	A61K007-20
		ICS	A61K007-22
	EP 1393711	ECLA	A61K008/29; A61Q011/00
	JP 2004083489	FTERM	4C083/AB051; 4C083/AB172; 4C083/AB241; 4C083/AB242; 4C083/AB372; 4C083/AB411; 4C083/AB412; 4C083/AC061; 4C083/AC102; 4C083/AC111; 4C083/AC122; 4C083/AC132; 4C083/AD042; 4C083/BB60; 4C083/CC41; 4C083/DD23; 4C083/DD27; 4C083/DD28; 4C083/EE03; 4C083/EE35
	US 2004047816	NCL	424/053.000
		ECLA	A61K008/29; A61Q011/00

AB A method for bleaching teeth comprises steps of applying a solution containing nitrogen-doped titanium oxide powder on a surface of teeth, and irradiating the applied part with light to bleach the teeth based on a photocatalytic action thus produced. A bleaching agent for teeth suitable for carrying out the method comprises a solution containing nitrogen-doped titanium oxide powder, in which the nitrogen-doped titanium oxide is preferably a photocatalytic substance having a Ti-O-N structure having a titanium oxide crystalline lattice containing nitrogen and exhibiting a photocatalytic action in a visible light region, the bleaching agent contains preferably 0.01 to 5% by weight of the nitrogen-doped titanium oxide powder having a sp. surface area of from 10 to 500 m²/g, the solution contains water and/or an alc. as a solvent, and the bleaching agent further contains preferably 0.5 to 20% by weight of a thickener, 1 to 20% by weight of hydrogen peroxide, and 2 to 45% by weight of urea peroxide.

ST titanium oxide nitrogen photocatalysis

bleaching dentifrice

IT Bleaching

Bleaching agents

Dentifrices

(photocatalytic bleaching agent for teeth containing nitrogen-doped titanium oxide powder)

IT Catalysis

(photochem.; photocatalytic bleaching agent for teeth containing nitrogen-doped titanium oxide powder)

IT 124-43-6 7722-84-1, Hydrogen peroxide, biological studies

7727-37-9, Nitrogen, biological studies

13463-67-7, Titanium oxide, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(photocatalytic bleaching agent for teeth containing nitrogen-doped titanium oxide powder)

IT 7727-37-9, Nitrogen, biological studies

13463-67-7, Titanium oxide, biological studies

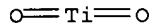
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(photocatalytic bleaching agent for teeth containing nitrogen-doped titanium oxide powder)

RN 7727-37-9 HCPLUS

CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

N
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N

RN 13463-67-7 HCAPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)



L49 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2003:855402 HCAPLUS
 DN 139:328432
 ED Entered STN: 31 Oct 2003
 TI Metal ion modified high surface area materials for odor removal and control
 IN MacDonald, John Gavin
 PA USA
 SO U.S. Pat. Appl. Publ., 12 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM A61L009-04
 ICS A61K009-14; A61K033-38; A61K009-70
 INCL 424443000; 424489000; 424046000; 442123000; 424618000
 CC 63-7 (Pharmaceuticals)
 Section cross-reference(s): 46, 59

FAN.CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.
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PI	US 2003203009	A1	20031030	US 2002-137052
	CA 2482788	AA	20031113	CA 2003-2482788
	WO 2003092885	A1	20031113	WO 2003-US6650
				20030304 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	BR 2003009282	A	20050209	BR 2003-9282
	EP 1503853	A1	20050209	EP 2003-716298
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			20030304 <--
PRAI	US 2002-137052	A	20020430	<--
	WO 2003-US6650	W	20030304	

CLASS			
	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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US	2003203009	ICM	A61L009-04
		ICS	A61K009-14; A61K033-38; A61K009-70
		INCL	424443000; 424489000; 424046000; 442123000; 424618000
US	2003203009	NCL	424/443.000
		ECLA	A61L009/01; A61L015/18; A61L015/46; B01D053/02; B01J020/02; B01J020/32
WO	2003092885	ECLA	A61L009/01; A61L015/18; A61L015/46; B01D053/02; B01J020/02; B01J020/32

AB This invention relates to high surface area materials, such as nanoparticles, that are coated with metal ions. These modified

nanoparticles have active sites that bind various gases and/or odorous compds., thereby removing these compds. from a medium such as air or water. Metal ions are adsorbed onto the surface of the nanoparticle and bound strongly to the surface. By selection of the metal ion, specific gaseous compds. and/or odorous compds. can be targeted and removed efficiently and effectively from both aqueous phase and from the air. The modified nanoparticles are useful in numerous article of manufacture for industrial and consumer use, such as diapers, feminine hygiene products, paper towels, aerosol spray, household cleaner, oral hygiene products, or filtering articles.

- ST metal ion modified nanoparticle odor removal sanitary article filter; household cleaner odor removal metal ion modified nanoparticle
- IT Sprays
 - (aerosols; metal ion modified high surface area materials for odor removal and control)
- IT Filters
 - (air, vent or face mask filters; metal ion modified high surface area materials for odor removal and control)
- IT Aldehydes, processes
 - Ketones, processes
 - RL: REM (Removal or disposal); PROC (Process)
 - (aliphatic; metal ion modified high surface area materials for odor removal and control)
- IT Nanoparticles
 - (coated with metal ions; metal ion modified high surface area materials for odor removal and control)
- IT Cleaning solvents
 - (household; metal ion modified high surface area materials for odor removal and control)
- IT Deodorization
 - Diapers
 - Zeta potential
 - (metal ion modified high surface area materials for odor removal and control)
- IT Alcohols, processes
 - Amines, processes
 - Carboxylic acids, processes
 - Disulfides
 - Sulfides, processes
 - Terpenes, processes
 - Thiols, processes
 - Trisulfides
 - RL: REM (Removal or disposal); PROC (Process)
 - (metal ion modified high surface area materials for odor removal and control)
 - IT Hygiene
 - (oral, products; metal ion modified high surface area materials for odor removal and control)
 - IT Odor and Odorous substances
 - (removal of; metal ion modified high surface area materials for odor removal and control)
 - IT Medical goods
 - (sanitary napkins; metal ion modified high surface area materials for odor removal and control)
 - IT Medical goods
 - (tampons; metal ion modified high surface area materials for odor removal and control)
 - IT Paper
 - (towels; metal ion modified high surface area materials for odor removal and control)
 - IT 14333-13-2, Permanganate ion 14701-21-4, Silver ion, uses 14998-27-7, Chlorite ion 15092-81-6, Persulfate ion 15158-11-9, uses 15438-31-0, Ferrous ion, uses 20074-52-6, Ferric ion, uses 65098-52-4, Gold ion
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (coated onto nanoparticle; metal ion modified high surface area materials for odor removal and control)

IT 7631-86-9, Silica, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (including colloidal, nanoparticle material; metal ion modified high surface area materials for odor removal and control)

IT 64-19-7, Acetic acid, processes 66-25-1, Hexanal 74-85-1, Ethylene, processes 78-93-3, 2-Butanone, processes 79-09-4, Propanoic acid, processes 98-02-2, Furfuryl mercaptan 99-49-0, Carvone 107-87-9, 2-Pentanone 111-71-7, Heptanal 123-19-3, 4-Heptanone 503-74-2, Isovaleric acid 7664-41-7, Ammonia, processes 7704-34-9D, Sulfur, compds. 7727-37-9D, Nitrogen, compds.
 RL: REM (Removal or disposal); PROC (Process)
 (metal ion modified high surface area materials for odor removal and control)

IT 1309-48-4, Magnesium oxide, uses 1314-13-2, Zinc oxide, uses 1332-37-2, Iron oxide, uses 1344-28-1, Alumina, uses 1344-70-3, Copper oxide 7440-57-5, Gold, uses 9003-53-6, Polystyrene 13463-67-7, Titanium dioxide, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (nanoparticle material; metal ion modified high surface area materials for odor removal and control)

IT 7727-37-9D, Nitrogen, compds.
 RL: REM (Removal or disposal); PROC (Process)
 (metal ion modified high surface area materials for odor removal and control)

RN 7727-37-9 HCAPLUS
 CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

N
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 N

IT 13463-67-7, Titanium dioxide, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (nanoparticle material; metal ion modified high surface area materials for odor removal and control)

RN 13463-67-7 HCAPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)

O—Ti—O

L49 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:291943 HCAPLUS
 DN 135:129460
 ED Entered STN: 25 Apr 2001
 TI Photooxidative N-demethylation of methylene blue in aqueous TiO₂ dispersions under UV irradiation
 AU Zhang, T.; Oyama, T.; Aoshima, A.; Hidaka, H.; Zhao, J.; Serpone, N.
 CS Frontier Research Center for the Global Environmental Protection, 2-1-1 Hodokubo, Meisei University, Tokyo, Hino-shi, 191-8506, Japan
 SO Journal of Photochemistry and Photobiology, A: Chemistry (2001), 140(2), 163-172
 CODEN: JPPCEJ; ISSN: 1010-6030
 PB Elsevier Science S.A.
 DT Journal
 LA English
 CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 22, 67
 AB Methylene blue (MB) is a representative of a class of dyestuff resistant to biodegradation. Its decomposition was examined in aqueous TiO₂ dispersions under UV illumination to assess the influence of temperature, pH, concentration of

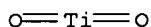
dissolved O (DOC), initial concentration of MB, and light intensity on the kinetics of decomposition. Hypsochromic effects (i.e. blue shifts of spectral bands) resulting from N-demethylation of the dimethylamino group in MB occurs concomitantly with oxidative degradation. The maximum quantity of MB adsorbed on TiO₂, and the kinetics of degradation of MB and of total organic C (TOC) removal were also measured at constant pH 4. Photobleaching of MB solns. takes place at low DOCs and is caused by a reversible reductive process involving photogenerated electrons on TiO₂. The rate of degradation of MB remains fairly constant regardless of whether the dispersion was purged with O prior to irradiation or with air during the light irradiation period. The photocatalytic process depends on light intensity, but not on the total light energy absorbed. The photoreaction followed pseudo-first-order kinetics even at high MB concns. (0.3 mM). The temperature dependence of the photodegrdn. kinetics was assessed ($E_a = 8.9 \text{ kJ/mol}$), as well as the relative photonic efficiency, ξ_r , relative to phenol (0.48).

- ST photooxidative atomic nitrogen demethylation methylene blue aq titanium oxide; dispersion UV irradn demethylation methylene blue aq titanium oxide
- IT Reaction kinetics
(first-order; photooxidative N-demethylation of methylene blue in aqueous TiO₂ dispersions under UV irradiation)
- IT Demethylation
Dyes
Hypsochromic effect
Photochemical bleaching
Photolysis
Photolysis kinetics
UV radiation
(photooxidative N-demethylation of methylene blue in aqueous TiO₂ dispersions under UV irradiation)
- IT 61-73-4, Methylene blue 13463-67-7, Titania, reactions
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(photooxidative N-demethylation of methylene blue in aqueous TiO₂ dispersions under UV irradiation)

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD

- RE
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 - (3) Harry, P; J Chem Soc Faraday Trans 1 1983, V79, P291
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 (30) Weber, E; Environ Sci Technol 1995, V29, P113
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 IT 13463-67-7, Titania, reactions
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (photooxidative N-demethylation of methylene blue in aqueous TiO₂ dispersions under UV irradiation)
 RN 13463-67-7 HCPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)



L49 ANSWER 9 OF 11 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 2000:725425 HCPLUS
 DN 133:300959
 ED Entered STN: 13 Oct 2000
 TI Oral composition with an improved teeth whitening effect containing a peroxy compound and a catalyst
 IN Joiner, Andrew; Thorntwhaite, David William
 PA Unilever N. V., Neth.; Unilever PLC; Hindustan Lever Ltd.
 SO PCT Int. Appl., 26 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K007-20
 ICS A61K007-16
 CC 62-7 (Essential Oils and Cosmetics)
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| PI WO 2000059461 | A1 | 20001012 | WO 2000-EP2858 | 20000331 <-- |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1165029 | A1 | 20020102 | EP 2000-914175 | 20000331 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO | | | | |
| BR 2000009452 | A | 20020108 | BR 2000-9452 | 20000331 <-- |
| PRAI EP 1999-302582 | A | 19990401 | | <-- |
| WO 2000-EP2858 | W | 20000331 | | <-- |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|---|------------------------------------|
| WO 2000059461 | ICM A61K007-20
ICS A61K007-16 | |
| WO 2000059461 | ECLA A61K008/25; A61Q011/00 | <-- |
| AB | The invention provides an improved teeth whitening oral care composition containing a peroxy compound and a catalyst which is an iron compound containing pentadentate nitrogen-containing ligands in which the H-atom of the C-H group of the methylamine moiety, present in the ligands is substituted by other groups. A typical example is FeMeN4Py (I). I removed the color of tea-stained and saliva-coated cotton. A dental paste contained sorbitol 33.60, abrasive silica 30.00, sodium bicarbonate 10.00, PEG-32 5.0, | |

thickening silica 2.00, flavors 1.00, sodium lauryl sulfate 2.98, cellulose gum 0.80, sodium saccharin 0.54, sodium fluoride 0.44, titanium dioxide 0.33, I 0.25, and water q.s. 100%.

ST oral teeth whitening peroxy compd catalyst; dental paste catalyst peroxy compd

IT Dentifrices
(gels; oral composition with improved teeth whitening effect containing peroxy compound and catalyst)

IT Catalysts
Dentifrices
(oral composition with improved teeth whitening effect containing peroxy compound and catalyst)

IT Peroxides, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oral composition with improved teeth whitening effect containing peroxy compound and catalyst)

IT 7439-89-6D, Iron, reaction with MeN4Py, biological studies 7722-84-1, Hydrogenperoxide, biological studies 223504-10-7D, reaction with iron
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oral composition with improved teeth whitening effect containing peroxy compound and catalyst)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(08)
- (2) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(10)
- (3) Colgate Palmolive Co; EP 0545594 A 1993 HCPLUS
- (4) Demetron Res Corp; EP 0516872 A 1992 HCPLUS
- (5) Lion Corp; JP 11130649 A 1999 HCPLUS
- (6) Mitsui Chem Inc; JP 11057488 A 1999 HCPLUS
- (7) Rech Conception Dev R C D Labo; EP 0332551 A 1989 HCPLUS
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- (9) Unilever Nv; WO 9605802 A 1996 HCPLUS
- (10) Unilever Plc; EP 0909809 A 1999 HCPLUS

L49 ANSWER 10 OF 11 HCPLUS COPYRIGHT 2005 ACS on STN

AN 1998:183774 HCPLUS

DN 128:263069

ED Entered STN: 28 Mar 1998

TI Irradiation temperature dependence on defects formations in insulating crystals

AU Nakagawa, M.; Itoh, H.; Nakanishi, S.; Okada, M.; Atobe, K.

CS Fac. Educ. Kagawa Univ., Japan

SO Kyoto Daigaku Genshiro Jikkensho Gakujutsu Koenkai Hobunshu (1998), 32, 217-222

CODEN: KDGHEI; ISSN: 0917-1746

PB Kyoto Daigaku Genshiro Jikkensho

DT Journal

LA Japanese

CC 71-12 (Nuclear Technology)

Section cross-reference(s): 73

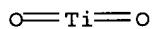
AB Formation efficiency of lattice defects in oxide single crystals are known to depend strongly on irradiation temperature. Some oxide single crystals were irradiated at several temps. using the low temperature irradiation facility of Kyoto University Reactor (KUR-LTL), such as 20, 50, 100, 150, 200 and about 300 K. After irradiations, samples are stored in liquid nitrogen for several months for the radioactivity to decay and the optical absorption spectra at liquid nitrogen temps. and also thermal breaching upon heating the samples was investigated. The differences between samples, including ionic oxides and semiconductors, is compared.

ST irradn temp defect formation insulating crystal; neutron irradn defect formation insulating crystal; oxide single crystal irradn defect formation

IT F-centers

(F+; irradiation temperature dependence of defect formation in insulating crystals)

IT Absorption spectra
 Annealing
 Crystal defects
 F-centers
 (irradiation temperature dependence of defect formation in insulating crystals)
 IT Bleaching
 (thermal; irradiation temperature dependence of defect formation in insulating crystals)
 IT 7439-89-6, Iron, uses 7439-96-5, Manganese, uses
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
 (dopant; irradiation temperature dependence of defect formation in insulating magnesia crystals)
 IT 12586-31-1, Neutron
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (irradiation temperature dependence of defect formation in insulating crystals)
 IT 1309-48-4, Magnesia, uses 1344-28-1, Alumina, uses 13463-67-7,
 Titania, uses
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (irradiation temperature dependence of defect formation in insulating crystals)
 IT 13463-67-7, Titania, uses
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (irradiation temperature dependence of defect formation in insulating crystals)
 RN 13463-67-7 HCPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)



L49 ANSWER 11 OF 11 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 1997:744496 HCPLUS
 DN 127:339121
 ED Entered STN: 27 Nov 1997
 TI Solution-Phase Grafting of Titanium Dioxide onto the Pore Surface of Mesoporous Silicates: Synthesis and Structural Characterization
 AU Aronson, Blake J.; Blanford, Christopher F.; Stein, Andreas
 CS Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455, USA
 SO Chemistry of Materials (1997), 9(12), 2842-2851
 CODEN: CMATEX; ISSN: 0897-4756
 PB American Chemical Society
 DT Journal
 LA English
 CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 67
 AB Titanium dioxide, a large-bandgap semiconductor and versatile photocatalyst, has been grafted onto the pore surface of MCM-41 and FSM-16 (a mesoporous material derived from kanemite) by reacting TiCl₄ in hexanes with the as-synthesized mesostructured silicate. The products have been extensively characterized by powder XRD, TEM, SEM, EDS, XPS, N₂ adsorption, SANS contrast matching, solid-state ¹H MAS NMR, IR, and UV-vis spectroscopies. It was found that titania forms well-dispersed isolated (TiO₂)_n clusters (n apprx. 30-70) within the channel structure. These are attached to the silicate walls via Si-O-Ti bonds. A minor second phase consisting of anatase crystallites ca. 100-250 Å in diameter on the external surface of the mesoporous silicate crystals was sometimes obtained. It is concluded that an organic moiety, such as the surfactant present in the pores, or a phys. constraint, such as the pore walls, is necessary to prevent the creation of large TiO₂ agglomerates and enable the formation of nanosized TiO₂

clusters. The titania-grafted MCM-41 samples exhibited good catalytic activity for photobleaching of rhodamine-6G and for oxidation of α -terpineol; however, product selectivity was low.

ST soln phase grafting photocatalyst titanium dioxide; mesoporous silicate nanosize titania cluster photocatalyst; titanium tetrachloride mesostructure silicate titania catalyst

IT Clusters
 (formation of nanosized TiO₂ clusters during solution-phase grafting of photocatalyst TiO₂ onto pore surface of mesoporous silicates)

IT Crystallites
 (minor second phase of anatase crystallites formed during solution-phase grafting of photocatalyst TiO₂ onto pore surface of mesoporous silicates)

IT Adsorption
 Isotherms
 (nitrogen adsorption isotherms to study nanosized photocatalyst TiO₂ clusters grafted onto internal surface of mesoporous supports)

IT Photochemical bleaching
 Photolysis
 (photobleaching of rhodamine-6G using nanosized photocatalyst TiO₂ clusters grafted onto internal surface of mesoporous supports)

IT Catalysts
 (photochem.; solution-phase grafting of photocatalyst TiO₂ onto pore surface of mesoporous silicates by reacting TiCl₄ in hexanes with mesostructured silicate)

IT Oxidation, photochemical
 (photooxidn. of α -terpineol using nanosized photocatalyst TiO₂ clusters grafted onto internal surface of mesoporous supports)

IT MCM zeolites
 RL: CAT (Catalyst use); USES (Uses)
 (solution-phase grafting of photocatalyst TiO₂ onto pore surface of mesoporous silicates by reacting TiCl₄ in hexanes with mesostructured silicate)

IT Silicates, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (solution-phase grafting of photocatalyst TiO₂ onto pore surface of mesoporous silicates by reacting TiCl₄ in hexanes with mesostructured silicate)

IT Surfactants
 (surfactants to prevent agglomerates and enable formation of nanosized TiO₂ clusters during solution-phase grafting of photocatalyst TiO₂ onto pore surface of mesoporous silicates)

IT 7727-37-9, Nitrogen, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (nitrogen adsorption isotherms to study nanosized photocatalyst TiO₂ clusters grafted onto internal surface of mesoporous supports)

IT 989-38-8, Rhodamine-6G
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photobleaching of rhodamine-6G using nanosized photocatalyst TiO₂ clusters grafted onto internal surface of mesoporous supports)

IT 98-55-5, α -Terpineol
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photooxidn. of α -terpineol using nanosized photocatalyst TiO₂ clusters grafted onto internal surface of mesoporous supports)

IT 1317-70-0, Anatase 13463-67-7, Titanium Dioxide, processes
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (solution-phase grafting of photocatalyst TiO₂ onto pore surface

- of mesoporous silicates by reacting TiCl₄ in hexanes with
mesostructured silicate)
- IT 7631-86-9, FSM-16, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(solution-phase grafting of photocatalyst TiO₂ onto pore surface
of mesoporous silicates by reacting TiCl₄ in hexanes with
mesostructured silicate)
- IT 7550-45-0, Titanium chloride (TiCl₄), reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(solution-phase grafting of photocatalyst TiO₂ onto pore surface
of mesoporous silicates by reacting TiCl₄ in hexanes with
mesostructured silicate)
- IT 1317-80-2, Rutile
RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process);
PROC (Process); USES (Uses)
(solution-phase grafting of photocatalyst titanium
dioxide onto pore surface of mesoporous silicates by reacting
TiCl₄ in hexanes with mesostructured silicate)
- IT 7631-86-9, Ultrasil VN 3SP, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solution-phase grafting of photocatalyst titanium
dioxide onto pore surface of mesoporous silicates by reacting
TiCl₄ in hexanes with mesostructured silicate)
- IT 1344-09-8, Sodium silicate
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(solution-phase grafting of photocatalyst titanium
dioxide onto pore surface of mesoporous silicates by reacting
TiCl₄ in hexanes with mesostructured silicate)
- IT 57-09-0, CTAB 112-02-7, CTAC 1119-94-4, DTAB
RL: MOA (Modifier or additive use); USES (Uses)
(surfactants to prevent agglomerates and enable formation of nanosized
TiO₂ clusters during solution-phase grafting of photocatalyst
TiO₂ onto pore surface of mesoporous silicates)
- RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD

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IT 7727-37-9, Nitrogen, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (nitrogen adsorption isotherms to study nanosized
 photocatalyst TiO₂ clusters grafted onto internal surface of
 mesoporous supports)
RN 7727-37-9 HCAPLUS
CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

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- IT 1317-70-0, Anatase 13463-67-7, Titanium**
Dioxide, processes
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process);
 PROC (Process); USES (Uses)
 (solution-phase grafting of photocatalyst TiO₂ onto pore surface
 of mesoporous silicates by reacting TiCl₄ in hexanes with
 mesostructured silicate)
RN 1317-70-0 HCAPLUS
CN Anatase (TiO₂) (9CI) (CA INDEX NAME)

O—Ti=O

- RN 13463-67-7 HCAPLUS**
CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)

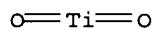
O—Ti=O

- IT 1317-80-2, Rutile**
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process);
 PROC (Process); USES (Uses)
 (solution-phase grafting of photocatalyst titanium

dioxide onto pore surface of mesoporous silicates by reacting
TiCl₄ in hexanes with mesostructured silicate)

RN 1317-80-2 HCPLUS

CN Rutile (TiO₂) (9CI) (CA INDEX NAME)



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